

## CHAPTER FIVE

**Travel-Demand Management Element**

Continued economic and population growth in the Bay Area and Alameda County will place an increasing demand on the region's transportation system. Other chapters of the CMP focus on providing a sufficient supply of transportation facilities and services to meet projected demand. This chapter focuses on "demand-related" strategies designed to reduce the need for new highway facilities over the long-term and to make the most efficient possible use of existing facilities to integrate air quality planning requirements with transportation planning and programming.

Regionwide Travel-Demand Management (TDM) programs continue to evolve. This element takes steps toward tailoring such programs to the needs of Alameda County. State law requires that the trip-reduction and TDM Element:

- Promote alternative transportation methods, including but not limited to carpools, vanpools, transit, bicycles and park-and-ride lots;
- Promote improvements in the balance between jobs and housing;
- Promote other strategies, including but not limited to flexible work hours, telecommuting and parking management programs; and
- Consider parking cash-out programs.

The CMA and BAAQMD are required to coordinate the development of trip-reduction responsibilities and avoid duplication of responsibilities between agencies. However, cities and other local jurisdictions can establish their own TDM programs that go beyond what the CMA and BAAQMD develop, but they cannot require employers to implement an employee trip-reduction program unless the program is required by federal law.

**ALTERNATIVE TRANSPORTATION METHODS**

Both the public and private sectors should encourage the use of alternatives to the single-occupant automobile. By reducing the number of vehicle trips during commute periods, congestion can be reduced and VMT under congested conditions can be decreased, thereby improving air quality.

Switching to buses or trains, increasing the number of occupants in each vehicle (autos, vans or buses), or increasing the number of people walking or bicycling will improve the efficiency of the transportation system, particularly during the system's peak periods.

The *Countywide Transportation Plan* recognizes the importance of alternative modes, especially transit. One of the goals of the plan is to improve transit access and increase transit use. In order to accomplish this goal, the plan places a priority on securing a reliable source of funding for transit investment and operations.

The following policies and programs—undertaken cooperatively by local government, the CMA, MTC, BAAQMD, Caltrans and the private sector—are intended to:

- Promote the use of transit, carpools, vanpools;
- Increase average vehicle occupancy;
- Encourage bicycling and walking as forms of transportation; and
- Encourage telecommuting to reduce commute travel demand.

## **INTEGRATING TDM AND CONGESTION MANAGEMENT**

Historically, TDM has been isolated from the planning and programming mainstream. It has not been an integral aspect of plans for capital improvement or system management. Nor have individual TDM projects been appraised from a systems or corridor point of view.

Figure 10 shows how TDM activities can be conceptualized as an integral element of an overall strategy of congestion management. They overlap with transportation system management in coordinated implementation of HOV lanes and transit operating subsidies. They also overlap with capital improvements with investment in bicycle and pedestrian facilities, transit capital facilities and construction of HOV lanes, as well as operational improvements to freeways and roadways.

### **A Balanced travel-demand management Program**

A balanced program requires actions that would be undertaken by local jurisdictions, the CMA, MTC, BAAQMD, Caltrans and local transit agencies.

The following policies represent a framework of realistic expectations for proposed actions that should be taken by the CMA and local governments as well as complementary actions that should be taken by regional and state agencies. The basic principle of the program is that travel-demand management activities should be effectively integrated with the CMP so that capital investment, system management and demand management can produce results that make a cumulative contribution to the CMA's efforts to contain congestion, provide alternatives to solo driving and sustain progress toward clean air.

### **Local Governments**

Local governments should adopt site design guidelines that enhance transit and, pedestrian and bicycle access. They should also work with transit agencies to establish bus shelters which display easily understood information about routes and schedules.

## **CMA**

The CMP should provide a framework for integrating TDM, system management and capital investment in an overall strategy for containing congestion, reducing vehicular emissions and providing attractive alternatives to solo driving and sustain progress toward clean air.

The CMA's funding policies should encourage multi-jurisdictional projects, such as SMART Corridors, to promote seamless operations across jurisdictional boundaries, a multimodal approach to system management and system efficiency and safety.

## **MTC, CMA and BAAQMD**

The CMA should seek maximum flexibility for providing its share of ridesharing funding. Historically, the CMA and MTC have funded the regional rideshare program.

## **Transit Agencies**

Transit operators should continue to work with each other to develop cooperative plans for coordinating line-haul and feeder services.

Transit agencies should work with Caltrans to develop cooperative plans for HOV lane express bus service. They should also work with local governments to establish bus shelters that include clear route and schedule information.

## **ALAMEDA COUNTY TDM PROGRAM**

The TDM program, as shown in Table 11, includes four programs, described below.

- a Required Program, which includes those actions local government must take in order to comply with the CMP;
- a Countywide Program, which includes those actions the CMA will take to support and supplement local efforts;
- a Regional Program, which includes those actions state and regional authorities should take to support travel-demand management programs areawide; and
- the Comprehensive Program includes all of the actions above, plus others that can be recommended for employers on an entirely voluntary basis.

Funding sources, lead agency and other partners are provided for each program. Taken together, they represent a fiscally realistic approach to effectively complement the CMA's overall CMP.

## **Required Program**

The Required Program includes those actions local government *must* take in order to comply with the CMP. It requires local jurisdictions to adopt and implement guidelines for site design that enhance transit, pedestrian and bicycle access. Local jurisdictions can satisfy this requirement by:

- Adopting and implementing design strategies that encourage alternatives to automobile use through local development review prepared by ABAG and the BAAQMD;
- Adopting and implementing design guidelines that meet the individual needs of the local jurisdiction and maintain the intent of the TDM Element to reduce the dependence on single-occupant vehicles; and
- Demonstrating that existing policies meet the intent of the TDM Element to reduce the dependence on single-occupant vehicles.

In order to ensure consistency among all jurisdictions, a TDM Checklist was prepared identifying components that should be included in local design guidelines (Appendix D). The checklist was approved by the Board upon recommendation from ACTAC.

Local jurisdictions are also required to implement capital improvements that contribute to congestion management and emissions reduction. This requirement can be satisfied by participating in the state TFCA and the federal STP and CMAQ Program. The CIP incorporates numerous project types and programs that are identified in the Transportation Control Measures (TCM) Plan. The TCMs are listed in Appendix E.

### **Countywide Program**

The Countywide Program includes actions the CMA will take to support the efforts of local jurisdictions. Action may include financial incentives such as the Parking Cash-out Program, the Guaranteed Ride Home Program and support of telecommuting. In order to further support alternative methods of transportation the CMA will embark on the Dynamic Ridesharing Pilot Project. The program will examine if “instant carpool matching” is acceptable to the public and cost effective.

### **Regional Program**

Regional Program includes actions state and regional authorities should take to support TDM programs areawide. It also includes actions by MTC, BAAQMD and Caltrans to meet areawide needs. The regional program focuses primarily on financial support for those activities that ensure coordinated transit, HOV lane use, development and/or maintenance of park-and-ride lots, ramp metering and arterial improvements, Americans with Disabilities Act (ADA) and bicycle and pedestrian improvements.

### **Comprehensive Program**

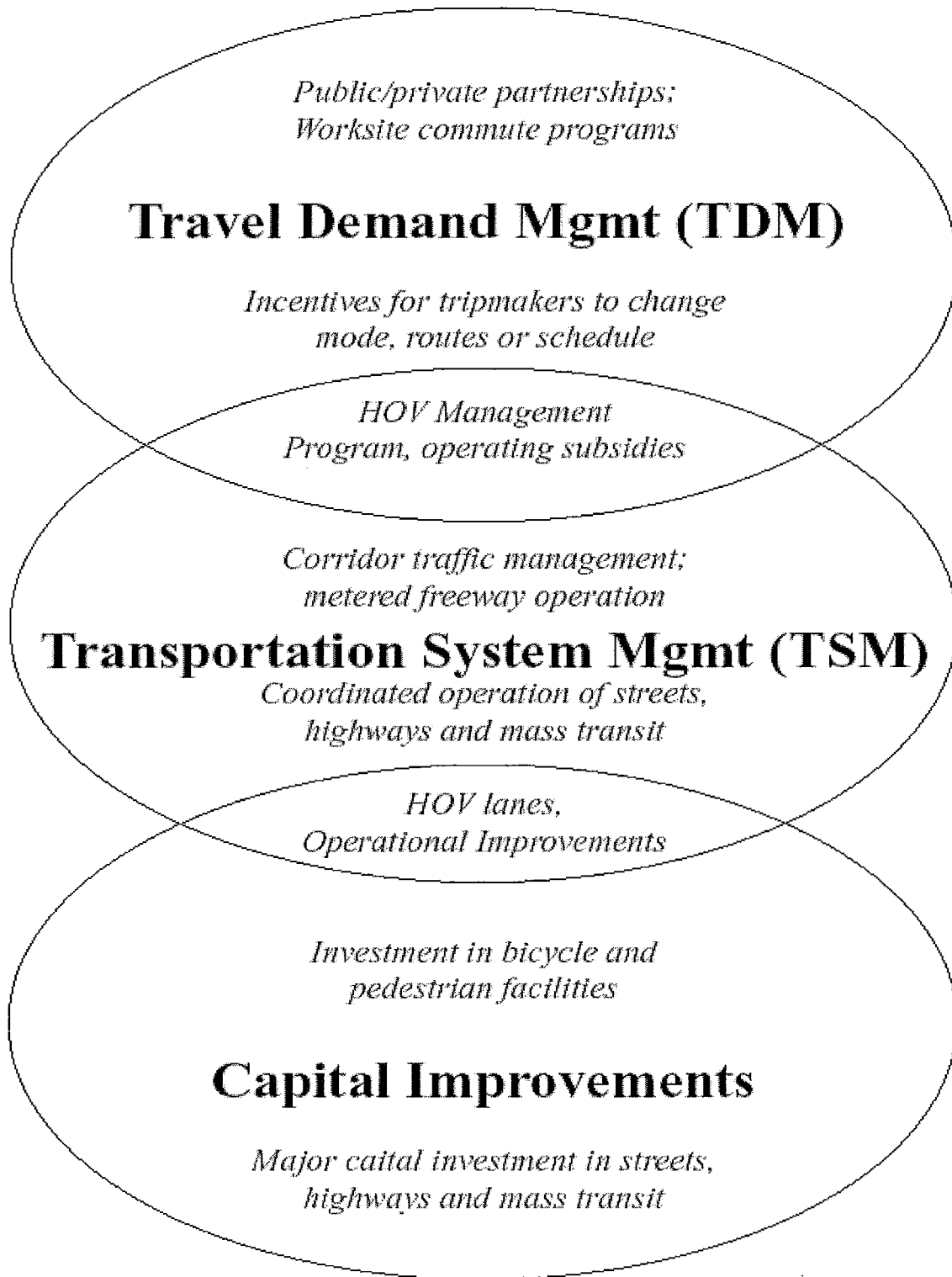
Comprehensive Program includes all of the actions above. Recognizing that the private sector also has a role in TDM, the Comprehensive Program also includes actions that employers may take on a voluntary basis to promote and encourage alternative modes of travel.

**Table 11—Travel-Demand Management Program**

ELEMENTS	FUNDING SOURCES	LEAD AGENCY	OTHER PARTNERS
<b>The Required Program</b>			
Actions local government must take to comply with the CMP, namely, the implementation of:			
Site design guidelines that enhance transit/pedestrian/bicycle access	n/a	Local	Planners and developers
Capitol improvements that contribute to congestion relief and emissions reduction	TFCA, TSM, STP and FCR	Local, CMA	Neighboring cities, management and transit agency, cyclists
<b>The Countywide Program</b>			
Actions the CMA will take to support and supplement the efforts of local government:			
Guaranteed Ride Home	TFCA	CMA	Taxis, other providers
Financial incentives for ridesharing and transit use	TBD	CMA	Local, employers
Telecommuting program	TBD	CMA (ABAG)	Local, employers
Support a long-term, stable and reliable source of funding for transit investment and operations	TBD	MTC, transit operators, CMA	Local
<b>The Regional Program</b>			
Actions state and regional authorities should take to meet areawide needs:			
Cooperative funding for regional ride-matching	TFCA, TDA Planning	CMA/AQMD/MTC	Employers
Regional ride home (to complement county program)	TFCA	MTC	CMA
Funding to implement transit coordination	STA, STP, TFCA	MTC	Transit operators

ELEMENTS	FUNDING SOURCES	LEAD AGENCY	OTHER PARTNERS
Funding for coordinated implementation of high-occupancy-vehicle lanes, express bus service and park-and-ride facilities	CR, TSM, STP, STA	Caltrans/MTC	Transit operators, CMA, local
Cooperative implementation of ramp metering and arterial improvements	TSM, STP	Caltrans	MTC, CMA
<b>The Comprehensive Program</b>			
All of the actions above, plus the voluntary efforts of employers other than city/county:			
Support Employer Transportation Managers Network	TFCA	Local	Local, employers
Transportation information for new employees	Private	Employers	Voluntary
Preferential parking for carpools, bicycles	Private	Employers	Voluntary
Flexible working hours	Private	Employers	Voluntary
Implementation of shuttle services where needed	TFCA	Employers/Local	Voluntary by cities, employers

**Figure 10—TDM Strategy for Congestion Management**



## FUNDING TRIP-REDUCTION PROGRAMS

### Transportation Fund for Clean Air

These laws permit the BAAQMD to collect a fee (up to \$4 per vehicle per year) for reducing air pollution from motor vehicles and for related planning and programs. The bill specifies the types of programs the fees may be used for as described below:

- Implementation of ridesharing programs (carpooling, vanpooling or transit; other trip-reduction projects, consistent with the county's adopted CMP).
- Purchase or lease of clean-fuel buses for school districts and transit operators.
- Provision of local feeder bus or shuttle service to rail and ferry stations and to airports.
- Implementation and maintenance of local arterial traffic management, including but not limited to signal timing, transit signal preemption, bus-stop relocation and "smart streets."
- Implementation of rail-bus integration and regional transit information systems.
- Implementation of low-emission and zero-emission vehicle programs, demonstration projects in telecommuting (with some restrictions) and in congestion pricing of highways, bridges and public transit.
- Implementation of smoking-vehicles program.
- Implementation of an automobile buy-back scrappage program operated by a governmental agency.
- Implementation of bicycle facility improvement projects that are included in an adopted countywide bicycle plan or CMP.
- Design and construction by local public agencies of physical improvements that support development projects that achieve motor-vehicle emission reductions. The projects and the physical improvements shall be identified in an approved area-specific plan, redevelopment plan, general plan or other similar plan.

Air quality legislation references the trip-reduction requirement in the CMP legislation and states that congestion management agencies in the Bay Area that are designated as TFCA program managers "shall ensure that those funds are expended as part of an overall program for improving air quality and for the purposes of this chapter (the CMP Statute)." The BAAQMD has interpreted this language to allow a wide variety of transportation control measures—including expansion of eligible transit, rail and ferry projects—to be eligible for funding.

- The TFCA requires the BAAQMD to allocate 40 percent of the revenue to an overall program manager(s) in each county. The CMA has been designated the overall program manager in Alameda County. The CMA developed a program that allocates the funds as follows: A maximum of five percent of the funds for program implementation and administration.

- 70 percent of the remaining funds to cities/county based on population with a minimum of \$10,000 to each jurisdiction; city/county population will be updated annually based on State Department of Finance estimates.
- 30 percent of the remaining funds allocated to transit related projects; all eligible applicants may apply for these funds for transit-related projects.
- A city or the county, with CMA Board approval, may choose to roll its annual 70 percent allocation into a future program year. Any 70 percent funds not used by a city/county will be added to the available funds for the current year discretionary program.
- With CMA Board approval, a local jurisdiction may request programming of a multi-year project using its current and projected future year share of the 70 percent funds.

### **Surface Transportation Program**

MTC, via the CMA administers STP funds. For TDM purposes, the following projects could be eligible for STP funds: highway projects including HOV lanes, signalization, transit projects and bike and pedestrian projects.

### **Congestion Mitigation and Air Quality Program**

MTC, via the CMA administers CMAQ funds. For TDM purposes, projects that are eligible include those types of transportation projects that improve air quality, such as ridesharing, bicycle and pedestrian projects.

### **FINANCIAL INCENTIVE PROGRAM**

A parking cash-out program is defined as an employer-funded program under which an employer offers to provide a cash allowance to an employee equivalent to the parking subsidy that the employer would otherwise pay to provide the employee with a parking space. Parking cash-out programs apply to employers of 50 or more persons in air basins designated as “non-attainment” areas. Parking subsidy is the difference between the out-of-pocket amount paid by an employer on a regular basis in order to secure an employee parking space not owned by the employer and the price, if any, charged to an employee for use of that space.

### **Demonstration Program**

A demonstration financial incentives program for public agencies was implemented in Alameda County in 1997 for one year. The purpose of the demonstrations were to provide an opportunity for employees to choose alternative ways to get to work other than driving alone, to study the effectiveness of the program and to find out whether increasing the incentives available made a difference in program participation. The ultimate goal was to reduce single-occupant vehicle use.

The results showed that there is potential for changing commute choices if continuous sources of revenues could be found. Based on the results of these demonstration programs and guidelines developed by the California Air Resources Board, policies will be developed to guide the CMA’s implementation of

this component of the CMP. Although this section of the CMP describes programs funded by TFCA and the state Petroleum Violation Escrow Account, it should be noted that other jurisdictions in Alameda County provide transit subsidies or other types of financial incentives to their employees (e.g., City of Alameda, City of Pleasanton, City of Hayward STRIDES Program). Report on the 1997 Parking Cast-out Program is available at the CMA office.

## **DYNAMIC RIDESHARING**

Dynamic ridesharing provides a new alternative to traditional ride-matching and carpool programs by maximizing flexibility and accommodating last minute requests for ride matches. Rather than commuters forming traditional daily carpools, dynamic ridesharing participants request ride matches only on days when they want to share a ride. The major benefits are that it requires minimal advance planning and accommodates changing travel times reducing the barriers to carpooling.

### **Pilot Project**

In 2005 and 2006, the ACCMA in collaboration with EDF/RideNow!, Inc., implemented the dynamic ridesharing pilot project, known as RideNow<sup>20</sup>, at the Dublin/Pleasanton BART station. It was funded by a grant from the Federal Highway Administration (FHWA) to implement, test and evaluate a dynamic ridesharing pilot project designed by RideNow, Inc.

RideNow is an automated system that enabled BART patrons to request carpool partners just minutes before they left home in the morning, or while on the BART train returning home in the evening. It provided both web and automated telephone (“Interactive Voice Response”) access for users. RideNow matched riders within a short time frame providing ‘instant matches’.

The Pilot project goals were to:

- Establish if dynamic ridesharing can provide a viable new travel option.
- Test the effectiveness of the program from a technical, administrative, marketing, cost and operational perspective.
- Assess the level of interest and usage in the program and evaluate its benefits and limitations.
- Determine the feasibility and applicability of expanding the program beyond the duration of the pilot project as well as to other locations within Alameda County or the San Francisco Bay region.

Based on feedback from participants and the participating agencies, the program did have value for people who desire to carpool, but have complex commutes that do not permit participation in more traditional carpool programs. However, more information is needed about how many people would be attracted to this type of flexible program compared to other ridesharing or TDM programs designed to get people out of their single occupant vehicles and if the program would be cost effective. Both agencies and program participants believe that if the program were continued it would need to be substantially

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<sup>20</sup> The name RideNow is used by permission by RideNow! Inc.

simplified and that increased marketing activities to target audiences and more time to build volume would be needed.

## **CONGESTION PRICING STRATEGIES**

In 2002, the CMA secured funding from MTC, Caltrans and the FHA to conduct a feasibility study for a high-occupancy toll lane in the I-680 corridor (now known as Smart Carpool Lane). The study evaluated a number of pricing options and analyzed a number of key factors such as physical constraints, institutional opportunities and constraints, operational issues and revenue potential. The study concluded in April 2003, found that a Smart carpool lane would be operationally, physically and financially feasible.

Subsequently, AB 2032 (Dutra, 2004) authorized implementation of the I-680 HOT lane (also known as Smart Carpool Lane). The project is currently in 95% design phase and construction is expected to be begin in 2008. The legislation also approved a second HOT lane in the County. The CMA Board approved I-580 as a candidate corridor, and related technical studies are underway.

In addition to the I-680 four-year demonstration project, the CMA will investigate the following pricing concepts: off-peak transit fare discounts and parking ticket surcharges by Alameda County jurisdictions with revenues to be used for transit. Initially, Free Transit on Spare the Air Days, another pricing concept, was to be investigated for implementation by the ACCMA. However, considering the regional nature of the issue, in 2006, MTC in partnership with BAAQMD and 24 transit operators across nine Bay Area counties launched “Spare the Air/Free Transit Program”. In 2006, transit fares were free during the first three non-holiday “Spare the Air” weekdays. In 2007, most of the Bay Area’s transit agencies will offer free rides all day on the first four non-holiday weekdays for which the Air District issues a Spare the Air declaration. But for BART, Caltrain, ACE and the ferries, the free rides will be available only to passengers who board before 1 p.m.

## **COMPLIANCE/CONFORMANCE**

The CMA must annually monitor conformance with the adopted CMP. Among other requirements, the CMA must determine if each city and the county has adopted and implemented a trip-reduction and travel-demand ordinance. In the early 1990s, a transportation control measure in the region’s Clean Air Plan required employers with 100 or more employees to conduct activities to encourage an increase in the use of alternatives to driving alone. BAAQMD oversaw implementation of this program; however, later legislation prohibited mandatory employer-based trip-reduction programs. The CMA therefore cannot require such programs in determining whether cities or the county are in compliance with the CMP.

Local jurisdictions shall have until September 1 of each year to adopt and implement the Required Program, which focused on adoption and implementation of site-design guidelines and adoption and implementation of a Capital Improvement Program.

If the CMA finds that a local jurisdiction has not adopted and implemented the Required Program, it may find the local jurisdiction in “non-conformance.” At the time of the finding, the CMA would provide

recommendations for corrective actions. If after 90 days the local jurisdiction is still in non-conformance, the CMA is required to provide notice to the CTC and the State Controller. The notice includes the reasons for the finding and evidence that the CMA correctly followed procedures for making the determination.

The State Controller would then withhold the non-conforming jurisdiction's increment of subventions from the fuel tax made available by Proposition 111, and the jurisdiction will not be eligible to receive funding for projects through the federal STP and CMAQ Program.

If within the 12-month period following the receipt of a notice of non-conformance, the CMA determines that the city or county is in conformance, the withheld Proposition 111 funds will be released. If after the 12-month period the city or county has not conformed, the withheld Proposition 111 funds will be released to the CMA for projects of regional significance included in the CMP or a deficiency plan.

## **LOCAL GOVERNMENT RESPONSIBILITIES**

In order to be found in conformance with the CMP, local jurisdictions must:

- By September 1 of each year, certify to the CMA that it has adopted and implemented site design guidelines that enhance transit/pedestrian access and implemented capital improvements that contribute to congestion management and emissions reduction.
- Local jurisdictions have until September 1 of each year to adopt and implement the Required Program.